

POOR LEGIBILITY

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STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
201 SOUTH FALL STREET
CARSON CITY, NEVADA 89710

NO. 1616

AIR QUALITY OPERATING PERMIT

Issued to: ETICAM, Inc.
2095 Newlands Drive East, Fernley, Nevada 89408
Location: Section 8, T20N, R25E, MDB&M (HA 76)

Is granted a permit to operate the following source of air contaminant:
Lime silo, Gutling/GNA, model and serial number unknown, with a maximum storage capacity of 50 m³ (1766 ft³), and a maximum discharge rate of 400 kilograms (882 pounds) per batch, with emission controlled by a baghouse,
which shall operate in compliance with Nevada Administrative Code (NAC) 445.430 through 445.846.

Restrictions:

1. Yearly throughput of lime must be submitted in writing to the Air Quality Officer by April 15 annually for the preceding calendar year.
2. The opacity from this source must not exceed 20% as specified in the Nevada Administrative Code.

This permit:

1. Is non-transferable in accordance with NAC 445.704.
2. Shall be posted conspicuously on or near the source.
3. Shall expire and be subject to renewal five (5) years after the date of issue.
4. Is issued on condition that the holder allows inspection of the premises by the representatives of the department at any time during its hours of operation, without prior notice.

DIRECTOR'S OFFICE
ORIGINAL SIGNED BY

Signature Lowell H. Shifley, Jr.
Issued by Lowell H. Shifley, Jr., P.E.
Phone 885-5065 Date June 15, 1988

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
201 SOUTH FALL STREET
CARSON CITY, NEVADA 89710

NO. 1617

AIR QUALITY OPERATING PERMIT

ISSUED TO: ETICAM, INC.

2095 NEWLANDS DRIVE EAST, FERNLEY, NEVADA 89408

LOCATION: SECTION 8, T20N, R25E, MDB&M (HA 76)

IS GRANTED A PERMIT TO OPERATE THE FOLLOWING SOURCE OF AIR CONTAMINANT:

Signal Spray Evaporator/Crystallizer, serial number unknown, a Falling Film Evaporator, serial number unknown, and a Cleaver-Brooks steam generating boiler, serial number unknown, utilizing #2 oil or natural gas as fuel,

WHICH SHALL OPERATE IN COMPLIANCE WITH NEVADA ADMINISTRATIVE CODE (NAC) 445.430 THROUGH 445.846.

RESTRICTIONS:

1. The peak aggregate input of treated water to both the evaporator/crystallizer and the falling film evaporator must not exceed 60.56 kiloliters (16,000 gallons) per day.
2. Fuel feed rate to the boiler must not exceed 227.1 liters (60 gallons per hour of #2 fuel oil or 177.8 cubic meters (8370 cubic feet) per hour of natural gas for a maximum heat input of 2.18×10^6 (8.66 x 10^6 BTU) PER HOUR.
3. The maximum allowable particulate emission limit for the boiler is 2.36 kilograms (5.19 pounds) per hour (calculated from Nevada Administrative Code 445.731). The Maximum allowable sulfur emission limit for the boiler is 5.5 kilograms (12.1 pounds) per hour (calculated from Nevada Administrative Code 445.745).
4. The following data must be submitted to the Air Quality Officer no later than 15 days following the end of each calendar quarter:
 - a) the results of a 24-hour composite sample of effluent must be analyzed processed water sent to the evaporator/crystallizer and the falling film evaporator (tested for those compounds listed in Water Quality Discharge Permit #NEV50004, Part I.A.). The composite sample only applies when there are multiple batches processed in a single day.
 - b) the total volume of water processed through both evaporators and the amount of time actually required (in minutes) for a given tested composite batch must be submitted along with the data analyzed in 4(a).
5. Annual consumption of #2 fuel oil and/or natural gas used for the boiler must be reported to the Air Quality Officer not later than April 15 annually for the preceding calendar year.
6. The opacity from this source must not exceed 20% as specified in the Nevada Administrative Code.

THIS PERMIT:

1. IS NON-TRANSFERABLE IN ACCORDANCE WITH NAC 445.704.
2. SHALL BE POSTED CONSPICUOUSLY ON OR NEAR THE SOURCE.
3. SHALL EXPIRE AND BE SUBJECT TO RENEWAL FIVE (5) YEARS AFTER THE DATE OF ISSUE.
4. IS ISSUED ON CONDITION THAT THE HOLDER ALLOWS INSPECTION OF THE PREMISES BY THE REPRESENTATIVES OF THE DEPARTMENT AT ANY TIME DURING ITS HOURS OF OPERATION, WITHOUT PRIOR NOTICE.

DIRECTOR'S OFFICE
ORIGINAL SIGNED BY

AMENDED:
AUGUST 4, 1988

SIGNATURE Lowell H. Shibley, Jr.
ISSUED BY LOWELL H. SHIBLEY, JR., P.E.
PHONE 885-5065 DATE JUNE 15, 1988

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY
123 WEST NYE LANE
CARSON CITY, NEVADA 89710

NO. 1615

AIR QUALITY OPERATING PERMIT

Issued to: ETICAM, INC.

2095 NEWLANDS DRIVE EAST, FERNLEY, NEVADA 89408

Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

is granted a permit to operate the following source of air contaminant:

Plant for the treatment of electro-plating wastewater to enable the recovery of precious and non-precious metals, with a maximum capacity for treating 79,200 gallons of wastewater per 24 hour day, of which up to 25% of the volume can be cyanide wastewater. The plant consists of 60 chemical storage tanks, 7 process reaction tanks (identified as T-1 through T-7), 4 sludge holding tanks (identified as C-1 through C-4), 4 sludge dryers, one dissolution tank (identified as D-1) and associated equipment necessary for the operation of the above equipment.

which shall operate in compliance with Nevada Administrative Code (NAC) 445.430 through 445.846.

Restrictions:

1. Facilities Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the Operating Permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions.

2. Excess Emissions

The Chief of the Bureau of Air Quality shall be notified by telephone within 24 hours following any failure of air pollution control equipment, process equipment, or of a process, to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the permit to construct restrictions. In addition, the Chief of the Bureau of Air Quality shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the Operating Permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause.

3. Right to Entry

The Chief of the Bureau of Air Quality and/or his authorized representative, upon the presentation of credentials, shall be permitted:

- A. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of the Operating Permit;
- B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of the Operating Permit;
- C. to inspect any equipment, operation, or method required in the Operating Permit;
- D. to sample emissions from the source.

4. Severability

The provisions of the Operating Permit are severable, and if any provision of the Operating Permit is held invalid, the remainder of the Operating Permit shall not be affected thereby.

5. Other Applicable Regulations

The owner or operator of the facility shall operate in compliance with all other applicable provisions of 40 CFR Parts 60 and 61 and Nevada Administrative Code 445.430 through 445.846.

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NO. 1615

AIR QUALITY OPERATING PERMIT

Issued to: ETICAM, INC.

2095 NEWLANDS DRIVE EAST, FERNLEY, NEVADA 89408

Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

Restrictions (Cont.):

6. Special Conditions

A. Air Pollution Equipment

ETICAM, Inc. shall operate and maintain the following air pollution controls to maintain compliance with Nevada Administrative Code.

Control system consisting of: All emissions (from the storage bay, detox room, sludge dryers, the MEFAX - liquid ion exchange - room and any internal process scrubber) discharged from the plant to the atmosphere must be controlled by a 17,000 m³/hour (10,000 ft³/min) main two stage scrubber, capable of maintaining at least 13,600 m³/hour (8,000 ft³/min) actual volume flow through the scrubber at all times. In addition the emissions from the sludge tanks (C-1 through C-4) and process reactors (T-1 through T-5) must be controlled by a 4,250 m³/hour (2,500 ft³/min) two stage scrubber, which discharges into the main building exhaust scrubber. Emissions from the off-load storage tanks must be controlled by a 850 m³/hour (500 ft³/min) three stage Reco Jet wet scrubber, which also discharges to the main building exhaust scrubber. Emissions from the two additional process reactors (T-6 and T-7) and the dissolution tank (D-1) must also be controlled by a 4,250 m³/hour (2,500 ft³/min) two stage scrubber, which discharges into the main building exhaust scrubber.

B. Performance Tests

1. A performance test consisting of three valid runs for volatile compounds, trace metals and anions (similar to the initial compliance test conducted on September 9-11, 1987) must be performed annually between May 15 and July 15 and conducted in accordance with the procedures and methods specified in Nevada Administrative Code 445.682 and, where applicable, 40 CFR 60.8, within 180 days after initial startup. All performance tests shall be conducted at the maximum permitted production rate of the source, $\pm 20\%$ if approved by the Chief of the Bureau of Air Quality.
2. The Chief of the Bureau of Air Quality shall be notified in writing and the stack emission test protocols submitted for review at least 30 days prior to such tests to allow time to arrange for an observer to be present at the tests. Prior approval of the stack emission test protocols will minimize the possibility of the Chief of the Bureau of Air Quality's rejection of test results for procedural deficiencies.
3. For performance test purposes, sampling ports, platforms, and access shall be provided by ETICAM, Inc. in accordance with Nevada Administrative Code 445.682.
4. A copy of the performance test results must be submitted to the Chief of the Bureau of Air Quality by the testing firm or the company within 60 days after such test is completed, in accordance with Nevada Administrative Code 445.682.

C. Emission Limits

1. Excess emissions shall be defined as any 6-minute average, as measured by Method 9 of Title 40 CFR Part 60, Appendix A, which exceeds an opacity of 20 percent.
7. The facility's main two stage wet scrubber flow rate must be maintained above 6,000 actual cubic feet per minute while the treatment plant is in operation. Pressure drop measurements for the two stage scrubber must be taken twice daily during operation of the treatment facility. These records must be maintained on site for a minimum of two years and made available to the Air Quality Officer or his authorized representative upon request.

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AIR QUALITY OPERATING PERMIT

Issued to: ETICAM, INC.

2095 NEWLANDS DRIVE EAST, FERNLEY, NEVADA 89408

Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

Restrictions (Cont.):

8. Detectors for cyanide and hydrogen sulfide must be located in the following areas with the specified alarm levels:

Location	Monitor Type	Alarm Level
West front gate, at point of nearest public access	Cyanide	1 ppm
Storage bay, next to the cyanide waste tanks	Cyanide	10 ppm
Detox. Room, next to the cyanide reactor(s)	Cyanide	10 ppm
Dissolution tank	Cyanide	10 ppm
Main building scrubber exhaust	Cyanide/H ₂ S	5 ppm (for both detectors)
Main heating system exhaust from plant	Cyanide/H ₂ S	5 ppm (for both detectors)

9. An automatic alarm system to warn the public must be activated by the detectors at the levels described in section 10 of this operating permit.

10. In the event of a release resulting in an alarm condition ETICAM, Inc. must adhere to the procedures specified in ETICAM's contingency plan and amendments (submitted May 5, 1989). The Air Quality Officer must also be notified of the release within 24 hours (during normal business hours) and submit a follow-up report within 15 days stating the cause, duration, weather conditions at the time of the release, steps taken to remedy the malfunction(s) and prevent the recurrence of the malfunction, and steps taken to limit the excess emission.

11. Noncompliance with any restrictions of the Operating Permit (defined in Nevada Administrative Code 445.559) shall be deemed a violation of Nevada Administrative Code 445.430 through 445.846 and a Notice of Alleged Violation may be issued.

12. The entire property upon which the plant is located shall be enclosed by at least a six foot chain link fence to limit public access to the main access gate only.

13. Daily throughput of electroplating wastewater averaged over the year and hours of operation must be submitted to the Air Quality Officer by April 15 annually for the preceding calendar year.

This permit:

1. Is non-transferable in accordance with NAC 445.704.
2. Shall be posted conspicuously on or near the source.
3. Shall expire and be subject to renewal five (5) years after the date of issue.
4. Is issued on condition that the holder allows inspection of the premises by the representatives of the department at any time during its hours of operation, without prior notice.

Amended:
September 14, 1990

Signature _____
Issued by Lowell H. Shifley, Jr., P.E.
Chief, Bureau of Air Quality
Phone 687-5065 Date June 15, 1989

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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
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CARSON CITY, NEVADA 89710

NO. 2538

AIR QUALITY PERMIT TO CONSTRUCT

Issued to: ETICAM, INC.

2095 NEWLANDS DRIVE EAST, FERNLEY, NEVADA 89408

Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

is granted a permit to construct, modify or establish the following source of air contaminant:

Solids handling and drying system consisting 2 hopper/feeder systems, 2 rotary drum dryers, transfer conveyors (for transfer from the hoppers to the dissolution tank, dryers or shipping containers), and a bagging system (for filling and packaging the dried solids). The dryers are fueled by natural gas generating a maximum heat input of 3×10^6 Btu/hr, each.

in accordance with Nevada Administrative Code (NAC) 445.430 through 445.846 and the plans, specifications or other materials submitted.

Restrictions:

1. Facilities Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the Permit to Construct shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions.

2. Excess Emissions

The Chief of the Bureau of Air Quality shall be notified by telephone within 24 hours following any failure of air pollution control equipment, process equipment, or of a process, to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the permit to construct restrictions. In addition, the Chief of the Bureau of Air Quality shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the Permit to Construct, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause.

3. Right to Entry

The Chief of the Bureau of Air Quality and/or his authorized representative, upon the presentation of credentials, shall be permitted:

- A. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of the Permit to Construct;
- B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of the Permit to Construct;
- C. to inspect any equipment, operation, or method required in the Permit to Construct;
- D. to sample emissions from the source.

4. Severability

The provisions of the Permit to Construct are severable, and if any provision of the Permit to Construct is held invalid, the remainder of the Permit to Construct shall not be affected thereby.

5. Other Applicable Regulations

The owner or operator of the facility shall operate in compliance with all other applicable provisions of 40 CFR Parts 60 and 61 and Nevada Administrative Code 445.430 through 445.846.

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Issued to: ETICAM, INC.

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Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

Restrictions (Cont.):

6. Special Conditions

A. Air Pollution Equipment

ETICAM, Inc. shall operate and maintain the following air pollution controls to meet the emission limits as specified in Section 6.C. (Emission Limits) of this Permit to Construct.

Control system consisting of a California Clean Air baghouse, model 210 WM 120, capable of achieving the allowable emission limitation.

B. Performance Tests

1. A performance test consisting of three valid runs for particulate and metals must be conducted in accordance with the procedures and methods specified in Nevada Administrative Code 445.682 and, where applicable, 40 CFR 60.8, within 180 days after initial startup. All performance tests shall be conducted at the maximum permitted production rate of the source, $\pm 20\%$ if approved by the Chief of the Bureau of Air Quality.
2. The Chief of the Bureau of Air Quality shall be notified in writing and the stack emission test protocols submitted for review at least 30 days prior to such tests to allow time to arrange for an observer to be present at the tests. Prior approval of the stack emission test protocols will minimize the possibility of the Chief of the Bureau of Air Quality's rejection of test results for procedural deficiencies.
3. For performance test purposes, sampling ports, platforms, and access shall be provided by ETICAM, Inc. in accordance with Nevada Administrative Code 445.682.
4. A copy of the performance test results must be submitted to the Chief of the Bureau of Air Quality by the testing firm or the company within 60 days after such test is completed, in accordance with Nevada Administrative Code 445.682.

C. Emission Limits

1. On and after the date of startup of the solids handling and drying system, ETICAM, Inc. shall not discharge or cause the discharge into the atmosphere from the exhaust stack of the solids handling and drying system, the following pollutants in excess of the following specified limits:
 - a) The discharge of particulate matter to the atmosphere must not exceed 0.02 grain per actual cubic foot of stack effluent, but not to exceed 1.888 pounds per hour.
 - b) The opacity from the stack discharge into the atmosphere from the solids handling and drying system must not exceed 20 percent in accordance with the Nevada Administrative Code.
2. Excess emissions shall be defined as any 6-minute average, as measured by Method 9 of Title 40 CFR Part 60, Appendix A, which exceeds an opacity of 20 percent.
7. Noncompliance with any restrictions of the Permit to Construct (defined in Nevada Administrative Code 445.559) shall be deemed a violation of Nevada Administrative Code 445.430 through 445.846 and a Notice of Alleged Violation may be issued.
8. Maximum combined throughput of the dryers must not exceed 2.7 metric (3.0 short) tons per hour with a maximum of 0.76×10^6 kg-cal (3×10^6 Btu) per hour.
- 8a. Maximum combined throughput of the hopper/feeder and conveyor system must not exceed 10.9 metric (12.0 short) tons per hour.
- 8b. Maximum throughput of the bagging system must not exceed 2.7 metric (3.0 short) tons per hour.
9. Source may operate 24 hours per day, 8760 hours per calendar year.

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Location: SECTION 8, T20N, R25E, MDB&M (HA 76)

Restrictions (Cont.):

10. Fugitive dust from the handling, transporting or storing of any material must be controlled in accordance with NAC 445.734.
11. Yearly production and hours of operation must be submitted in writing to the Chief of the Bureau of Air Quality by April 15 annually for the preceding calendar year.
12. The Chief of the Bureau of Air Quality must be notified in writing of commencement of construction, completion of construction, and commencement of operation in accordance with NAC 445.681.
13. Local grading, building, health or any other permits must be obtained from the appropriate agency as the issuance of this permit to construct does not preclude the necessity for their procurement.
14. This permit to construct expires if construction of the source is not commenced within one year from the date of issuance or construction of the source is delayed for one year after initiated.
15. ETICAM, Inc. must not process material in the solids handling and drying system containing organic compounds which may be volatilized in the process without specific approval from the Chief of the Bureau of Air Quality.
16. ETICAM, Inc. must test each batch of waste processed in the solids handling and drying system for all organic compounds listed in 40 CFR Part 261, Table 1 (MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC). The presence of any of the organic contaminants listed in the table will require the approval of the Chief of the Bureau of Air Quality for further processing.

This permit:

1. Is non-transferable in accordance with NAC 445.704.
2. Is issued on condition that the holder allows inspection of the premises by authorized representatives of the department at any time during hours of construction or operation, without prior notice.

Signature

Issued by Lowell H. Shifley, Jr., P.E.
Chief, Bureau of Air Quality

Phone 687-5065 Date September 14, 1990